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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,680	01/24/2001	Asger Geppel	54337.000010	4425

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Hunton & Williams LLP
Intellectual Property Department
1900 K Street, NW
Suite 1200
Washington, DC 20006

EXAMINER

KAM, CHIH MIN

ART UNIT	PAPER NUMBER
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1656

MAIL DATE	DELIVERY MODE
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06/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/767,680

Applicant(s)

GEPPEL ET AL.

Examiner

Chih-Min Kam

Art Unit

1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-17, 34-39, 42-44, 48-52, 56 and 58-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-17, 35-39, 42-44 and 58-61 is/are rejected.
- 7) ☒ Claim(s) 34, 48-52, 56 and 62 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Request for Continued Examination (RCE) filed on March 27, 2007 under 37 CFR 1.114 is acknowledged. An action on the RCE follows.

Status of the Claims

2. Claims 13-17, 34-39, 42-44, 48-52, 56 and 58-62 are pending.

Applicants' amendments filed January 29 and March 27, 2007 are acknowledged.

Applicants' response has been fully considered. Claims 13-16 have been amended, claims 4-12 29-33, 40-41, 45-47 and 53-55 have been cancelled, and new claim 62 has been added.

Therefore, claims 13-17, 34-39, 42-44, 48-52, 56 and 58-62 are examined.

Withdrawn Claim Rejections - 35 USC § 112

3. The previous rejection of claims 8-9 and 45-47 under 35 U.S.C. 112, first paragraph, enablement, is withdrawn in view of applicants' cancellation of the claims in the amendment filed January 29, 2007.

4. The previous rejection of claims 40-42 under 35 U.S.C. 112, second paragraph, is withdrawn in view of applicants' cancellation of the claim, and applicants' response at pages 7-8 in the amendment filed March 27, 2007.

Withdrawn Claim Rejections - 35 USC § 103(a)

5. The previous rejection of claims 4-7 and 10-12, under 35 U.S.C. §103(a) as being unpatentable over Kaneko et al. (USPN 5,075,226), is withdrawn in view of applicants' cancellation of the claim in the amendment filed January 29, 2007.

Maintained - Claim Rejections - 35 USC § 103(a)

6. Previous rejection of Claims 13-17, 35-39, 43-44 and 58-61 under 35 U.S.C. § 103(a) as being unpatentable over Kaneko *et al.* (USPN 5,075,226) is maintained (see paragraph 19 of the Office Action dated 11/19/2004). Claim 42 is included in the rejection because the claim recites the inherent property of the modified lactic acid bacterial cell in the starter culture, thus the bacterial cultures comprising at least 0.1 ppm of haemin as described by Kaneko *et al.* would be expected to have this property. Applicant's arguments have been fully considered but are not deemed persuasive for the following reasons.

Applicant argues that the bacterial cultures as described by Kaneko *et al.* are used to produce diacetyl and acetoin, where the culture solution produced is used to improve the flavor of food, and there is no discussion or contemplation of the isolating any starter culture from the fermentation process. See Examples 1-5. Therefore, Kaneko *et al.* fails to provide a suggestion or motivation to isolate or harvest bacteria at the completion of his claimed process for the purpose of making a frozen or freeze-dried starter culture. Additionally, the Advisory Action asserts that "... Kaneko *et al.* teach[es] the use of *Lactococcus lactis* from the ATCCwhich cells are delivered either as frozen liquid or freeze dried with a cryoprotectant added..." Kaneko *et al.*, however, is silent on the subject of the form of the *Lactococcus lactis* cells, and does not mention freeze-dried, frozen, or starter cultures. For at least these reasons, Kaneko *et al.* does not provide motivation or suggestion to modify its disclosure in any manner and does not teach or suggest all of the claim elements. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. §103(a) (pages 8-9 of the response).

Art Unit: 1656

Applicants' response has been fully considered, however the arguments are not found persuasive because of the following reasons. Kaneko *et al.* teach culturing lactic acid bacteria in haemin (e.g., at a concentration of 0.1-500 μ M), and the culture solution or a concentrate thereof is used to increase or improve the flavor of foods (column 5, lines 6-10). Although the reference does not specifically indicate the form of the *Lactococcus lactis* cells, since the culture solution is used to increase or improve the flavor of foods, it would be expected that the culture solution would be concentrated or isolated in various forms (e.g., either in liquid, frozen or freeze-dried form) for subsequent use. Therefore, the rejection of the claims under 35 U.S.C. §103(a) is maintained.

Claim Objections

7. Claims 34, 48-52, 56 and 62 are objected to because the claims are dependent from a rejected claim.

Conclusion

8. Claims 13-17, 35-39, 42-44 and 58-61 are rejected; and claims 34, 48-52, 56 and 62 are objected to.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (571) 272-0948. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleen Bragdon can be reached at 571-272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1656

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chih-Min Kam, Ph. D.
Primary Patent Examiner



CHIH-MIN KAM
PRIMARY EXAMINER

CMK

June 3, 2007